



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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SECRETARY

May 3, 1994

MEMORANDUM

TO: W. H. Webb, P.E.  
Manager of Program Development Branch

FROM: M. B. Mustafa, P.E. *MBM*  
Feasibility Studies Unit

SUBJECT: US 1, SR 1423 interchange study, Lee County,  
FS # 52-94-007

Per your request, the following is preliminary background information, and cost estimates for the subject study. The Planning & Environmental Branch is currently preparing a State EA/FONSI (R-2500, Project # 6.409006T) for construction of a diamond interchange at the US 1/SR 1423 grade separation.

The interchange was requested to provide direct access to US 1 from the proposed Sanford-Lee County Airport. The proposed airport site is bounded by CSX railroad and SR 1002 (see Figure 2). The airport is expected to be in operation by 1996. Lee County officials expect that the airport site would eventually develop into an industrial park. Due to the layout of the proposed airport, access to the site would have to be provided via SR 1425 west of the CSX railroad.

By the year 2015, approximately 150 trips per day would be generated by the airport. This is based on the size of the proposed airport (6,500-ft. ultimate runway length), and the expected aircraft fleet that would be based there. It is likely that these trips would include a maximum of 10% trucks, since the airport will cater to general aviation only.

The following three alternative improvements (see Figure 2) were studied. It should be noted that Alternative 1 is the recommended alternative by the Planning & Environmental Branch:



Alternative 1: This improvement includes converting Bridge # 41 to a full diamond interchange, and widening SR 1423 to a two-lane, 28-foot (8.5-meter) pavement with 8-foot (2.4-meter) usable shoulders. This Alternative would provide the most direct, and shortest (1 mile/1.6 km) route between US 1 and the site. This alternative will not require the replacement, or widening of any structures. It is anticipated that this improvement would require one residential relocation. The estimated cost of Alternative 1 is:

Right-of-way	\$ 600,000
Construction	\$2,300,000
Total	\$2,900,000

Alternative 2: This improvement includes widening SR 1425, SR 1423, and SR 1466 to a two-lane, 28-foot (8.5-meter) pavement with 8-foot (2.4-meter) usable shoulders. This Alternative would provide the site with access to US 1 via the existing SR 1466 interchange. The length of this route is 4.3 miles (6.9 km). This alternative will not require the replacement, or widening of any structures. It is estimated that this improvement would require the relocation of 6 residences and 2 businesses. The estimated cost of Alternative 2 is:

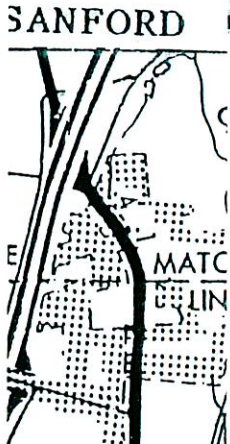
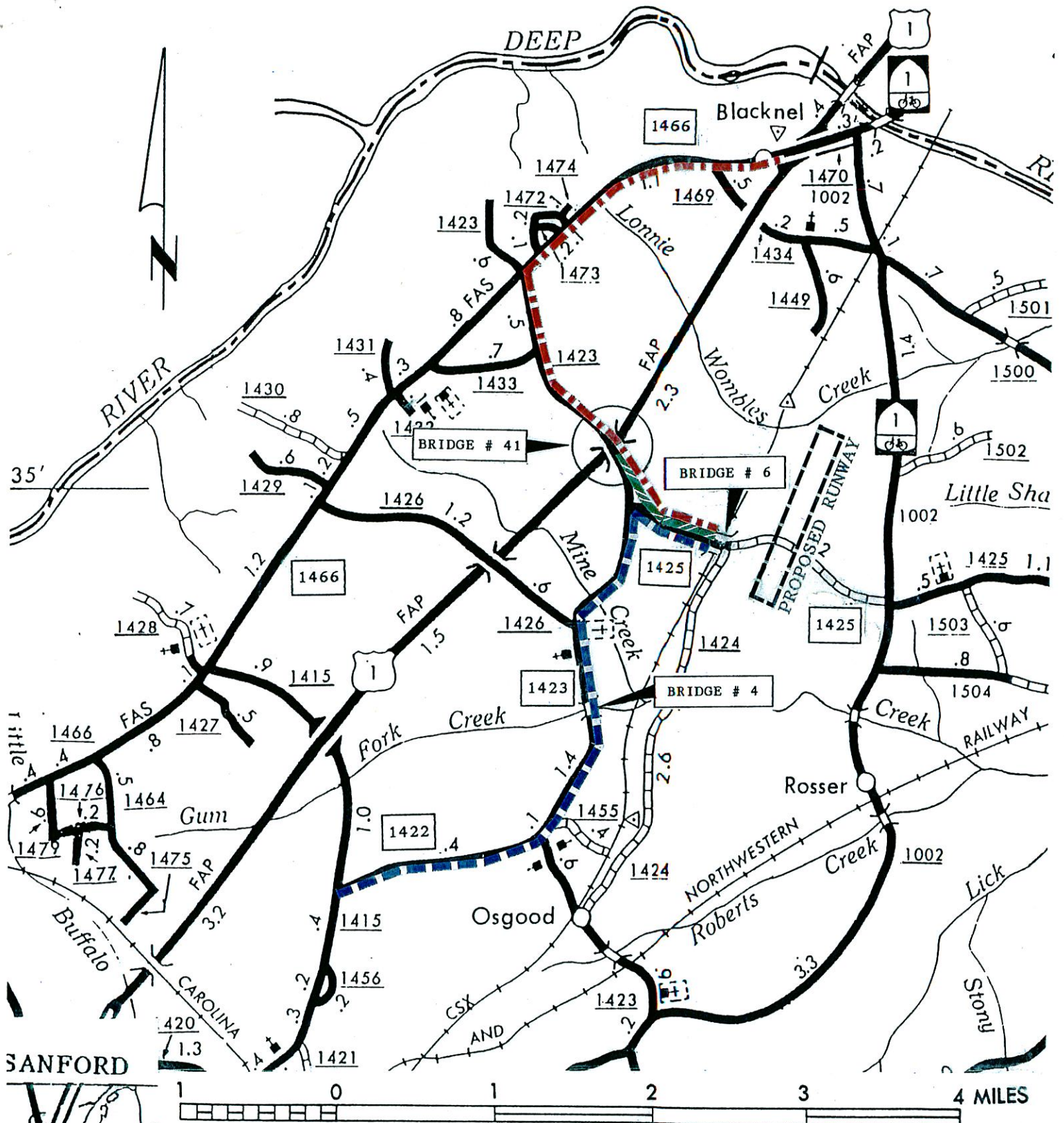
Right-of-way	\$2,200,000
Construction	\$1,900,000
Total	\$4,100,000

Alternative 3: This improvement includes widening SR 1425, SR 1423, and SR 1422 to a two-lane, 28-foot (8.5-meter) pavement with 8-foot (2.4-meter) usable shoulders. The improvement would also include the replacement of Bridge # 4 with a triple barrel 10x10 RCBC. This improvement would provide the site with access to US 1 via the existing SR 1415 interchange. The length of this route is 5.5 miles (8.8 km). It is estimated that this improvement would require the relocation of 5 residences. The estimated cost of Alternative 3 is:

Right-of-way	\$1,300,000
Construction	\$3,800,000
Total	\$5,100,000

Please let me know if you need any further information regarding this study.





LEGEND	
	ALTERNATIVE 1
	ALTERNATIVE 2
	ALTERNATIVE 3

FEASIBILITY STUDIES UNIT	
FS # 52-94-007	
US 1 AND SR 1423 INTERCHANGE	
LEE COUNTY	
DIVISION 8	FIGURE 2